

BOWDITCH (V. Y.)

A CASE OF
Traumatic Linear Atrophy

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A CASE OF TRAUMATIC LINEAR ATROPHY.

BY VINCENT Y. BOWDITCH, M.D., OF BOSTON.

DURING the past year my attention was called to an affection of the skin, the symptoms of which were so marked and peculiar that I have thought it worth while to present the case to you this evening.

Mrs. A., a widow, aged sixty, with children, a person of decidedly sensitive and nervous temperament, has had for many years slight aortic disease, which in the last two years has shown somewhat more marked symptoms, together with a decided increase in bodily weight. Early in the past year she began to have an annoying paroxysmal cough, which, after repeated examinations of throat and lungs, with negative results, I came to the conclusion was of nervous origin, and, owing to her generally debilitated condition, I prescribed change of scene and air, and sent her to a relative's house in the country. On the twenty-sixth of February, a year ago, I was called to see her, and found the cough was still quite severe, at times causing vomiting and much dyspnoea. The patient complained also of an extreme sensitiveness confined to the lower abdomen. Upon examination nothing abnormal was to be seen, but, upon palpation, the walls of the abdomen, which was large and pendulous, were very sensitive, which symptom I regarded as rather hysterical than otherwise. I prescribed, however, a liniment containing aconite root and chloroform, with soap and opium, and did not see her until the following week, when she sent me word



that several small puffy excrescences had appeared upon the abdomen, accompanied by a feeling of great heat and distension. Upon examination, the lower quarter of the abdomen down to the pubes and Poupart's ligament was very hyperæmic, and, ramifying in every direction upward, were curious, whitish, œdematous-looking elevations from one eighth to one fourth of an inch in width, most marked near the pubes and median line, and gradually disappearing toward the line where the hyperæmia ceased; the whole having in arrangement the appearance of the branches of a tree, and giving to the finger the sensation of very soft, crumpled rice-paper. I ordered the liniment to be discontinued, and a lotion containing the acetate of lead was substituted. The following week the hyperæmia increased, and the elevations had increased in size, in some places having coalesced so much as to make lumps as large as half of a pullet's egg. There was no marked tenderness, but a feeling of heat and puckering all the time, with a sense of distension of the parts, which caused much discomfort to the patient when sitting upright in a chair. The general symptoms were not materially changed.

Not being satisfied with the course of the trouble, I called in consultation Dr. J. C. White, who considered it a very marked and rare case of either linear atrophy or keloid, and recommended leaving off all applications and using an abdominal supporter to relieve the tension of the skin. Owing to delay in obtaining the supporter it could not be applied until some two weeks later, and as the hyperæmia and the elevations seemed to be slowly disappearing, I decided not to use the supporter, and see if the abdomen would not regain its natural appearance without aid of any sort. Two weeks

later the hyperæmia and swelling had entirely disappeared, leaving only numerous cicatrices similar to those noticed on the thighs and abdomen of a woman who has borne children, or whose abdomen is large and pendulous.

In the *Journal of Cutaneous Medicine* (vol. i. p. 140) Sir Erasmus Wilson speaks of “*Striæ et Maculæ Atrophicæ Cutis*, or false cicatrices of the skin.” By these names he designates the whitish, slightly curved, puckered streaks so well known to us as seen on the abdominal walls and thighs of women who have borne children. He considers that these marks are due to rupture of the corium, with loss of the subcutaneous fat, of the papillary layer of the derma, of its vessels and nerves, leaving a smooth and unmoulded epidermis. From this loss of substance arises the name of *striæ atrophicæ*, or linear atrophy. He mentions, also, the existence of similar false cicatrices in the skin which have arisen under different conditions from those of pregnancy, and divides them, according to the nature of their origin, into three classes of linear atrophy, namely: (1) neurotic, (2) traumatic, and (3) idiopathic.

Under the first head come the lines sometimes noticed over the course of cutaneous nerves which have been paralyzed. For instance, in cases of paralysis of the supra-orbital, the course of the nerve can be traced by the whitish line which marks the position of the nerve, and which, some time later, loses its sensibility and becomes atrophied, resembling the scar of a sword-cut, the line in this case being more firm and condensed than in the other forms.

Under the second head, namely, the traumatic form, Wilson considers all those cases which arise from overdistension of the skin from causes act-

ing from within, and mentions the conditions of pregnancy, of dropsy, and obesity. He likens this condition to that of a rubber bag which is overdistended with gas; it first yields, and then gives way at the weaker places. He concludes: "In the corium this violence is accompanied with hyperæmia and followed by exhausted nutritive power and atrophy."

The third, or idiopathic, form he considers appears without apparent cause, although the nutrition of the skin is evidently affected by an unhealthy general condition. Unlike the traumatic form, moreover, it appears in parts of the body not subjected to distension of any sort.

This case I class under the second head, namely, linear atrophy of traumatic origin. We have the history of long-continued paroxysmal cough, causing frequent and violent distension of the abdominal walls, which, owing to the debilitated condition of the patient, yield in the manner mentioned above, and after two or three weeks of acute hyperæmia and swelling a gradual diminution of the symptoms occurs, until no vestige of the trouble is left except the small cicatrices of the ruptured corium.

In this case the symptoms were all unusually well marked, and to one whose attention had never been called before to the affection the appearance was decidedly puzzling, not to say alarming.

Diagnosis.—The only other disease with which linear atrophy could be confounded is the so-called "keloid," and several authorities speak of the marked similarity between the two affections, and the frequent difficulty of distinguishing one from the other. Cases of the latter are divided by most authors into two classes, namely, the true and the false keloid, according to the idiopathic or traumatic origin of the affection.

True keloid is the name applied to an affection characterized by a collection of small red tubercles, usually found upon the sternum, sides of the body and back, which increase in size slowly until they coalesce, forming oval or cylindrical-shaped tumors, dry and puckered in appearance, with spur-like processes, somewhat tender upon pressure, and firmly rooted in the skin. This process of growth may go on for months or years with more or less discomfort to the patient from a sense of burning or itching, and the affection rarely disappears, although exceptional cases are reported in which entire disappearance of the tumors was noticed.

False keloid is a term used to designate the exaggerated cicatricial tissue noticed in places where a wound has previously existed, and differs from the true form in that it is usually smaller, longer, bifurcating, and follows the course of the original lesion. The difficulty oftentimes of drawing the line between true and false keloid is spoken by Kaposi in his article on "Keloid," *Lehrbuch der Kinderkrankheiten*, vol. ii.

The course of the disease, its sudden appearance and comparatively rapid disappearance, the absence of tenderness in the tumors themselves, are facts which enable us to decide against the presence of keloid in the present case. The slight elevations noticed resembled the tumors of that disease, but their rapid shrinking, leaving nothing but the ordinary atrophic lines, is another proof of the non-existence of keloid.

Treatment is of little avail in these cases, and the disease will, as a general thing, run its course uninfluenced by medication. Attention to the general health and an attempt to remove the exciting causes are chiefly indicated, as in this case, for in-

stance, where an attempt was made to relieve the pressure on the walls of the abdomen by means of a supporter, medicines to relieve the paroxysmal cough were given. Sedative applications are of little or ~~no~~ use in checking the course of the affection.

In conclusion, the question might naturally arise, Could the affection described have arisen from the application of the liniment containing aconite-root and chloroform, with soap and opium? Such a supposition can hardly be sustained: *first*, from the fact that no case has ever been recorded of similar trouble arising from the use of this very common remedy; *second*, because attention had been called to the extreme sensitiveness of the lower part of the abdomen before any external applications were made; and *third*, because similar affections, in which the general symptoms were like those mentioned in this case, have been recorded by various authorities.

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- (7) Sir E. Wilson. *Students' Handbook of Cutaneous Medicine*.